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Asp Pro Glu Asn Thr Gly Phe Ile Gly Ala Asp Thr Phe Thr Gly Leu
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Val His Ser His Glu Leu Pro Leu Asp Pro Ala Lys Leu Asp Met Leu
            100                 105                 110

Val Ala Leu Ala Gln Ser Asn Glu Gln Gly Gln Val Cys Tyr Gln Glu
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Leu Val Asp Leu Ile Ser Ser Lys Arg Ser Ser Ser Phe Lys Arg Ala
    130                 135                 140

Ile Ala Asn Gly Gln Arg Ala Leu Pro Arg Asp Gly Pro Leu Asp Glu
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Pro Gly Leu Gly Val Tyr Lys Arg Phe Val Arg Tyr Val Ala Tyr Glu
                165                 170                 175

Ile Leu Pro Cys Glu Val Asp Arg Arg Trp Tyr Phe Tyr Arg His Arg
            180                 185                 190

Ser Cys Pro Pro Pro Val Phe Met Ala Ser Val Thr Leu Ala Gln Ile
        195                 200                 205

Ile Val Phe Leu Cys Tyr Gly Ala Arg Leu Asn Lys Trp Val Leu Gln
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Thr Tyr His Pro Glu Tyr Met Lys Ser Pro Leu Val Tyr His Pro Gly
225                 230                 235                 240

His Arg Ala Arg Ala Trp Arg Phe Leu Thr Tyr Met Phe Met His Val
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Gly Leu Glu Gln Leu Gly Phe Asn Ala Leu Leu Gln Leu Met Ile Gly
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Arg Ala Pro Val Val Gly Gly Ser Gly Gly Val Tyr Ala Leu Cys Ser
305 310 315 320

Ala His Leu Ala Asn Val Val Met Asn Trp Ala Gly Met Arg Cys Pro
325 330 335

Tyr Lys Leu Leu Arg Met Val Leu Ala Leu Val Cys Met Ser Ser Glu
340 345 350

Val Gly Arg Ala Val Trp Leu Arg Phe Ser Pro Pro Leu Pro Ala Ser
355 360 365

Gly Pro Gln Pro Ser Phe Met Ala His Leu Ala Gly Ala Val Val Gly
370 375 380

Val Ser Met Gly Leu Thr Ile Leu Arg Ser Tyr Glu Glu Arg Leu Arg
385 390 395 400

Asp Gln Cys Gly Trp Trp Val Val Leu Leu Ala Tyr Gly Thr Phe Leu
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His Ile Pro Pro Pro Pro
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Val Ser Lys Trp Met Leu Pro Glu Lys Ser Arg Gly Thr Tyr Leu Glu
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Arg Ala Asn Cys Phe Pro Pro Pro Val Phe Ile Ile Ser Ile Ser Leu
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Ala Glu Leu Ala Val Phe Ile Tyr Tyr Ala Val Trp Lys Pro Gln Lys
85 90 95

Gln Trp Ile Thr Leu Asp Thr Gly Ile Leu Glu Ser Pro Phe Ile Tyr
100 105 110

Ser Pro Glu Lys Arg Glu Glu Ala Trp Arg Phe Ile Ser Tyr Met Leu
115 120 125

Val His Ala Gly Val Gln His Ile Leu Gly Asn Leu Cys Met Gln Leu
130 135 140

Val Leu Gly Ile Pro Leu Glu Met Val His Lys Gly Leu Arg Val Gly
145 150 155 160

Leu Val Tyr Leu Ala Gly Val Ile Ala Gly Ser Leu Ala Ser Ser Ile
165 170 175

Phe Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser Gly Gly Val Tyr Ala
180 185 190

Leu Met Gly Gly Tyr Phe Met Asn Val Leu Val Asn Phe Gln Glu Met
195 200 205

Ile Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile Ile Ile Leu Ile Ile
210 215 220

Val Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg Phe Phe Val Pro Glu
225 230 235 240

Asp Gly Ser Pro Val Ser Phe Ala Ala His Ile Ala Gly Gly Phe Ala
245 250 255

Gly Met Ser Ile Gly Tyr Thr Val Phe Ser Cys Phe Asp Lys Ala Leu
260 265 270

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275 280 285

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35 40 45

Gly Tyr Gln Asp Phe Val Ser Leu Val Ser Asn Lys Arg Ser Asn Ser
50 55 60

Phe Arg Gln Ala Ile Leu Gln Gly Asn Arg Arg Leu Ser Ser Lys Ala
65 70 75 80

Leu Leu Glu Glu Lys Gly Leu Ser Leu Ser Gln Arg Leu Ile Arg His
85 90 95

Val Ala Tyr Glu Thr Leu Pro Arg Glu Ile Asp Arg Lys Trp Tyr Tyr
100 105 110

Asp Ser Tyr Thr Cys Cys Pro Pro Pro Trp Phe Met Ile Thr Val Thr
115 120 125

Leu Leu Glu Val Ala Phe Phe Leu Tyr Asn Gly Val Ser Leu Gly Gln
130 135 140

Phe Val Leu Gln Val Thr His Pro Arg Tyr Leu Lys Asn Ser Leu Val
145 150 155 160

Tyr His Pro Gln Leu Arg Ala Gln Val Trp Arg Tyr Leu Thr Tyr Ile
165 170 175

Phe Met His Ala Gly Ile Glu His Leu Gly Leu Asn Val Val Leu Gln
180 185 190

Leu Leu Val Gly Val Pro Leu Glu Met Val His Gly Ala Thr Arg Ile
195 200 205

Gly Leu Val Tyr Val Ala Gly Val Val Ala Gly Ser Leu Ala Val Ser
210 215 220

Val Ala Asp Met Thr Ala Pro Val Val Gly Ser Ser Gly Gly Val Tyr
225 230 235 240

Ala Leu Val Ser Ala His Leu Ala Asn Ile Val Met Asn Trp Ser Gly
245 250 255

Met Lys Cys Gln Phe Lys Leu Leu Arg Met Ala Val Ala Leu Ile Cys
260 265 270

Met Ser Met Glu Phe Gly Arg Ala Val Trp Leu Arg Phe His Pro Ser
275 280 285

Ala Tyr Pro Pro Cys Pro His Pro Ser Phe Val Ala His Leu Gly Gly
290 295 300

Val Ala Val Gly Ile Thr Leu Gly Val Val Val Leu Arg Asn Tyr Glu
305 310 315 320

Gln Arg Leu Gln Asp Gln Ser Leu Trp Trp Ile Phe Val Ala Met Tyr
325 330 335

Thr Val Phe Val Leu Phe Ala Val Phe Trp Asn Ile Phe Ala Tyr Thr
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Leu Leu Asp Leu Lys Leu Pro Pro Pro Pro
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35 40 45

Gln Lys Cys Gly Phe Arg Lys Ala Pro Arg Lys Val Glu Pro Arg Arg
50 55 60

Ser Asp Pro Gly Thr Ser Gly Glu Ala Tyr Lys Arg Ser Ala Leu Ile

65 70 75 80

Pro Pro Val Glu Glu Thr Val Phe Tyr Pro Ser Pro Tyr Pro Ile Arg
85 90 95

Ser Leu Ile Lys Pro Leu Phe Phe Thr Val Gly Phe Thr Gly Cys Ala
100 105 110

Phe Gly Ser Ala Ala Ile Trp Gln Tyr Glu Ser Leu Lys Ser Arg Val
115 120 125

Gln Ser Tyr Phe Asp Gly Ile Lys Ala Asp Trp Leu Asp Ser Ile Arg
130 135 140

Pro Gln Lys Glu Gly Asp Phe Arg Lys Glu Ile Asn Lys Trp Trp Asn
145 150 155 160

Asn Leu Ser Asp Gly Gln Arg Thr Val Thr Gly Ile Ile Ala Ala Asn
165 170 175

Val Leu Val Phe Cys Leu Trp Arg Val Pro Ser Leu Gln Arg Thr Met
180 185 190

Ile Arg Tyr Phe Thr Ser Asn Pro Ala Ser Lys Val Leu Cys Ser Pro
195 200 205

Met Leu Leu Ser Thr Phe Ser His Phe Ser Leu Phe His Met Ala Ala
210 215 220

Asn Met Tyr Val Leu Trp Ser Phe Ser Ser Ser Ile Val Asn Ile Leu
225 230 235 240

Gly Gln Glu Gln Phe Met Ala Val Tyr Leu Ser Ala Gly Val Ile Ser
245 250 255

Asn Phe Val Ser Tyr Leu Gly Lys Val Ala Thr Gly Arg Tyr Gly Pro
260 265 270

Ser Leu Gly Ala Ser Gly Ala Ile Met Thr Val Leu Ala Ala Val Cys
275 280 285

Thr Lys Ile Pro Glu Gly Arg Leu Ala Ile Ile Phe Leu Pro Met Phe
290 295 300

Thr Phe Thr Ala Gly Asn Ala Leu Lys Ala Ile Ile Ala Met Asp Thr
305 310 315 320

Ala Gly Met Ile Leu Gly Trp Lys Phe Phe Asp His Ala Ala His Leu
325 330 335

Gly Gly Ala Leu Phe Gly Ile Trp Tyr Val Thr Tyr Gly His Glu Leu
340 345 350

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355 360 365

Thr Asn Gly Pro Lys Lys Gly Gly Gly Ser Lys
370 375

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taaccttcta acttgtttct tgacgaccac ctcatgtggc caataaatga actgggagcg 2940

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<211> 855
<212> PRT
<213> Homo sapiens

<400> 10

Met Ser Glu Ala Arg Arg Asp Ser Thr Ser Ser Leu Gln Arg Lys Lys
1 5 10 15

Pro Pro Trp Leu Lys Leu Asp Ile Pro Ser Ala Val Pro Leu Thr Ala
20 25 30

Glu Glu Pro Ser Phe Leu Gln Pro Leu Arg Arg Gln Ala Phe Leu Arg
35 40 45

Ser Val Ser Met Pro Ala Glu Thr Ala His Ile Ser Ser Pro His His
50 55 60

Glu Leu Arg Arg Pro Val Leu Gln Arg Gln Thr Ser Ile Thr Gln Thr
65 70 75 80

Ile Arg Arg Gly Thr Ala Asp Trp Phe Gly Val Ser Lys Asp Ser Asp
85 90 95

Ser Thr Gln Lys Trp Gln Arg Lys Ser Ile Arg His Cys Ser Gln Arg
100 105 110

Tyr Gly Lys Leu Lys Pro Gln Val Leu Arg Glu Leu Asp Leu Pro Ser
115 120 125

Gln Asp Asn Val Ser Leu Thr Ser Thr Glu Thr Pro Pro Pro Leu Tyr
130 135 140

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Val Gly Pro Cys Gln Leu Gly Met Gln Lys Ile Ile Asp Pro Leu Ala
145                 150                 155                 160

Arg Gly Arg Ala Phe Arg Val Ala Asp Asp Thr Ala Glu Gly Leu Ser
                165                 170                 175

Ala Pro His Thr Pro Val Thr Pro Gly Ala Ala Ser Leu Cys Ser Phe
            180                 185                 190

Ser Ser Ser Arg Ser Gly Phe His Arg Leu Pro Arg Arg Arg Lys Arg
        195                 200                 205

Glu Ser Val Ala Lys Met Ser Phe Arg Ala Ala Ala Ala Leu Met Lys
    210                 215                 220

Gly Arg Ser Val Arg Asp Gly Thr Phe Arg Arg Ala Gln Arg Arg Ser
225                 230                 235                 240

Phe Thr Pro Ala Ser Phe Leu Glu Glu Asp Thr Thr Asp Phe Pro Asp
                245                 250                 255

Glu Leu Asp Thr Ser Phe Phe Ala Arg Glu Gly Ile Leu His Glu Glu
            260                 265                 270

Leu Ser Thr Tyr Pro Asp Glu Val Phe Glu Ser Pro Ser Glu Ala Ala
        275                 280                 285

Leu Lys Asp Trp Glu Lys Ala Pro Glu Gln Ala Asp Leu Thr Gly Gly
    290                 295                 300

Ala Leu Asp Arg Ser Glu Leu Glu Arg Ser His Leu Met Leu Pro Leu
305                 310                 315                 320

Glu Arg Gly Trp Arg Lys Gln Lys Glu Gly Ala Ala Ala Pro Gln Pro
                325                 330                 335

Lys Val Arg Leu Arg Gln Glu Val Val Ser Thr Ala Gly Pro Arg Arg
            340                 345                 350

Gly Gln Arg Ile Ala Val Pro Val Arg Lys Leu Phe Ala Arg Glu Lys
        355                 360                 365
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Arg Pro Tyr Gly Leu Gly Met Val Gly Arg Leu Thr Asn Arg Thr Tyr
    370                 375                 380

Arg Lys Arg Ile Asp Ser Phe Val Lys Arg Gln Ile Glu Asp Met Asp
385                 390                 395                 400

Asp His Arg Pro Phe Phe Thr Tyr Trp Leu Thr Phe Val His Ser Leu
                405                 410                 415

Val Ala Ile Leu Ala Val Cys Ile Tyr Gly Ile Ala Pro Val Gly Phe
            420                 425                 430

Ser Gln His Glu Thr Val Asp Ser Val Leu Arg Asn Arg Gly Val Tyr
        435                 440                 445

Glu Asn Val Lys Tyr Val Gln Gln Glu Asn Phe Trp Ile Gly Pro Ser
    450                 455                 460

Ser Glu Ala Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Met Arg
465                 470                 475                 480

Gln Asp Pro Gln Val His Ser Phe Ile Arg Ser Ala Arg Glu Arg Glu
                485                 490                 495

Lys His Ser Ala Cys Cys Val Arg Asn Asp Arg Ser Gly Cys Val Gln
            500                 505                 510

Thr Ser Glu Glu Glu Cys Ser Ser Thr Leu Ala Val Trp Val Lys Trp
        515                 520                 525

Pro Ile His Pro Ser Ala Pro Glu Leu Ala Gly His Lys Arg Gln Phe
    530                 535                 540

Gly Ser Val Cys His Gln Asp Pro Arg Val Cys Asp Glu Pro Ser Ser
545                 550                 555                 560

Glu Asp Pro His Glu Trp Pro Glu Asp Ile Thr Lys Trp Pro Ile Cys
                565                 570                 575

Thr Lys Asn Ser Ala Gly Asn His Thr Asn His Pro His Met Asp Cys
            580                 585                 590

Val Ile Thr Gly Arg Pro Cys Cys Ile Gly Thr Lys Gly Arg Cys Glu
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595 600 605

Ile Thr Ser Arg Glu Tyr Cys Asp Phe Met Arg Gly Tyr Phe His Glu
610 615 620

Glu Ala Thr Leu Cys Ser Gln Val His Cys Met Asp Asp Val Cys Gly
625 630 635 640

Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln Phe Tyr Arg Leu
645 650 655

Trp Leu Ser Leu Phe Leu His Ala Gly Ile Leu His Cys Leu Val Ser
660 665 670

Ile Cys Phe Gln Met Thr Val Leu Arg Asp Leu Glu Lys Leu Ala Gly
675 680 685

Trp His Arg Ile Ala Ile Ile Tyr Leu Leu Ser Gly Val Thr Gly Asn
690 695 700

Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu Val Gly Pro Ala
705 710 715 720

Gly Ser Gln Phe Gly Ile Leu Ala Cys Leu Phe Val Glu Leu Phe Gln
725 730 735

Ser Trp Gln Ile Leu Ala Arg Pro Trp Arg Ala Phe Phe Lys Leu Leu
740 745 750

Ala Val Val Leu Phe Leu Phe Thr Phe Gly Leu Leu Pro Trp Ile Asp
755 760 765

Asn Phe Ala His Ile Ser Gly Phe Ile Ser Gly Leu Phe Leu Ser Phe
770 775 780

Ala Phe Leu Pro Tyr Ile Ser Phe Gly Lys Phe Asp Leu Tyr Arg Lys
785 790 795 800

Arg Cys Gln Ile Ile Ile Phe Gln Val Val Phe Leu Gly Leu Leu Ala
805 810 815

Gly Leu Val Val Leu Phe Tyr Val Tyr Pro Val Arg Cys Glu Trp Cys
820 825 830

Glu Phe Leu Thr Cys Ile Pro Phe Thr Asp Lys Phe Cys Glu Lys Tyr
835 840 845

Glu Leu Asp Ala Gln Leu His
850 855

<210> 11
<211> 2643
<212> DNA
<213> Homo sapiens

<400> 11
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ccgctgccct cctcaagggg cgctcggtgc tggatgccac cggacagcgg tgccgggtgg 120

tcaagcgcag ctttgccttc ccgagcttcc tggaggagga tgtggtcgat ggggcagaca 180

cgtttgactc ctccttttt agtaaggaag aaatgagctc catgcctgat gatgtctttg 240

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cccccgatgg ggtgcaaatc cctctgaagg agtatggccg agccccagtc cccgggcccc 360

ggcgcggcaa gcgcatcgcc tccaaggtga agcactttgc ctttgatcgg aagaagcggc 420

actacggcct cggcgtggtg ggcaactggc tgaaccgcag ctaccgccgc agcatcagca 480

gcactgtgca gcggcagctg gagagcttcg acagccaccg gccctacttc acctactggc 540

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tgggctttgc ccagcacgtc accacccagc tggtgctgcg gaacaaaggt gtgtacgaga 660

gcgtgaagta catccagcag gagaacttct gggttggccc cagctcgatt gacctgatcc 720

acctgggggc caagttctca ccctgcatcc ggaaggacgg gcagatcgag cagctggtgc 780

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gcatccagac ccagcggaag gactgctcgg agactttggc cacttttgtc aagtggcagg 900

atgacactgg gccccccatg gacaagtctg atctgggcca gaagcggact tcgggggctg 960

tctgccacca ggaccccagg acctgcgagg agccagcctc cagcggtgcc cacatctggc 1020

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tcctgcacat ggactgcgag atcaagggcc gcccctgctg catcggcacc aagggcagct 1140

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agccagagac ccaagacagg gcccgggctc tggacctggg tgccccccctg ccaggcgagg 2040

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tcctcagcgc tgcctctgct ggtgccttct cccccactac tactggagcg tgcccttgct 2280

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aaa 2643

<210> 12
<211> 619
<212> PRT
<213> Homo sapiens

<400> 12

Met Ser Val Ala His Met Ser Leu Gln Ala Ala Ala Ala Leu Leu Lys
1 5 10 15

Gly Arg Ser Val Leu Asp Ala Thr Gly Gln Arg Cys Arg Val Val Lys
20 25 30

Arg Ser Phe Ala Phe Pro Ser Phe Leu Glu Glu Asp Val Val Asp Gly
35 40 45

Ala Asp Thr Phe Asp Ser Ser Phe Phe Ser Lys Glu Glu Met Ser Ser
50 55 60

Met Pro Asp Asp Val Phe Glu Ser Pro Pro Leu Ser Ala Ser Tyr Phe
65 70 75 80

Arg Gly Ile Pro His Ser Ala Ser Pro Val Ser Pro Asp Gly Val Gln
85 90 95

Ile Pro Leu Lys Glu Tyr Gly Arg Ala Pro Val Pro Gly Pro Arg Arg
100 105 110

Gly Lys Arg Ile Ala Ser Lys Val Lys His Phe Ala Phe Asp Arg Lys
115 120 125

Lys Arg His Tyr Gly Leu Gly Val Val Gly Asn Trp Leu Asn Arg Ser
130 135 140

Tyr Arg Arg Ser Ile Ser Ser Thr Val Gln Arg Gln Leu Glu Ser Phe
145 150 155 160

Asp Ser His Arg Pro Tyr Phe Thr Tyr Trp Leu Thr Phe Val His Val
165 170 175

Ile Ile Thr Leu Leu Val Ile Cys Thr Tyr Gly Ile Ala Pro Val Gly
180 185 190

Phe Ala Gln His Val Thr Thr Gln Leu Val Leu Arg Asn Lys Gly Val
195 200 205

Tyr Glu Ser Val Lys Tyr Ile Gln Gln Glu Asn Phe Trp Val Gly Pro
210 215 220

Ser Ser Ile Asp Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Ile

225 230 235 240

Arg Lys Asp Gly Gln Ile Glu Gln Leu Val Leu Arg Glu Arg Asp Leu
245 250 255

Glu Arg Asp Ser Gly Cys Cys Val Gln Asn Asp His Ser Gly Cys Ile
260 265 270

Gln Thr Gln Arg Lys Asp Cys Ser Glu Thr Leu Ala Thr Phe Val Lys
275 280 285

Trp Gln Asp Asp Thr Gly Pro Pro Met Asp Lys Ser Asp Leu Gly Gln
290 295 300

Lys Arg Thr Ser Gly Ala Val Cys His Gln Asp Pro Arg Thr Cys Glu
305 310 315 320

Glu Pro Ala Ser Ser Gly Ala His Ile Trp Pro Asp Asp Ile Thr Lys
325 330 335

Trp Pro Ile Cys Thr Glu Gln Ala Arg Ser Asn His Thr Gly Phe Leu
340 345 350

His Met Asp Cys Glu Ile Lys Gly Arg Pro Cys Cys Ile Gly Thr Lys
355 360 365

Gly Ser Cys Glu Ile Thr Thr Arg Glu Tyr Cys Glu Phe Met His Gly
370 375 380

Tyr Phe His Glu Glu Ala Thr Leu Cys Ser Gln Val His Cys Leu Asp
385 390 395 400

Lys Val Cys Gly Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln
405 410 415

Phe Tyr Arg Leu Trp Leu Ser Leu Phe Leu His Ala Gly Val Val His
420 425 430

Cys Leu Val Ser Val Val Phe Gln Met Thr Ile Leu Arg Asp Leu Glu
435 440 445

Lys Leu Ala Gly Trp His Arg Ile Ala Ile Ile Phe Ile Leu Ser Gly
450 455 460

Ile Thr Gly Asn Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu
465 470 475 480

Val Gly Pro Ala Gly Ser Gln Phe Gly Leu Leu Ala Cys Leu Phe Val
485 490 495

Glu Leu Phe Gln Ser Trp Pro Leu Leu Glu Arg Pro Trp Lys Ala Phe
500 505 510

Leu Asn Leu Ser Ala Ile Val Leu Phe Leu Phe Ile Cys Gly Leu Leu
515 520 525

Pro Trp Ile Asp Asn Ile Ala His Ile Phe Gly Phe Leu Ser Gly Leu
530 535 540

Leu Leu Ala Phe Ala Phe Leu Pro Tyr Ile Thr Phe Gly Thr Ser Asp
545 550 555 560

Lys Tyr Arg Lys Arg Ala Leu Ile Leu Val Ser Leu Leu Ala Phe Ala
565 570 575

Gly Leu Phe Ala Ala Leu Val Leu Trp Leu Tyr Ile Tyr Pro Ile Asn
580 585 590

Trp Pro Trp Ile Glu His Leu Thr Cys Phe Pro Phe Thr Ser Arg Phe
595 600 605

Cys Glu Lys Tyr Glu Leu Asp Gln Val Leu His
610 615

<210> 13
<211> 1305
<212> DNA
<213> Homo sapiens

<400> 13
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ggaacgacgg cggccatggc ggcctcgggg cccgggtgtc gcagctggtg cttgtgtccc 180

gaggtgccat ccgccacctt cttcactgcg ctgctctcgc tgctggtttc cgggcctcgc 240

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ctgctctgcg gcgctatcat catctggcgc tttgctggca atttcgagag aaccgtgggc 420

accgtccgcc actgcttctt caccgtgatc ttcgccatct tctccgctat catcttcctg 480

tcattcgagg ctgtgtcatc actgtcaaag ctgggggaag tggaggatgc cagaggtttc 540

accccagtgg cctttgccat gctgggagtc accaccgtcc gttctcggat gaggcgggcc 600

ctggtgtttg gcatggttgt gccctcagtc ctggttccgt ggctcctgct gggtgcctcg 660

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tatgctcacc tactgctatt ccatcgacct ctcagagcga gtggcgctga agctcgatca 780

gaccttcccc ttcagcctga tgaggaggat atccgtgttc aagtacgtct cagggtcttc 840

agccgagagg agggcagccc agagccggaa actgaacccg gtgcctggct cctaccccac 900

acagagctgc caccctcacc tgtccccaag ccaccctgtg tcccagacgc agcacgccag 960

tggtcagaag ctggcctcct ggcctcctgc acccccgggc acatgcccac cttgcctccg 1020

taccagcctg cctccggcct gtgctatgtg cagaaccact ttggtccaaa ccccacctcc 1080

tccagtgtct acccagcttc tgcgggcacc tccctgggca tccagccccc cacgcctgtg 1140

aacagccctg gcacggtgta ttctggggcc ttgggacacc aggggctgca ggctccaagg 1200

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ctgaaggtcc tccctaagag tctcctgaca aaagttactt attga 1305

<210> 14
<211> 434
<212> PRT
<213> Homo sapiens

<400> 14

Met Gly Arg Gly Leu Trp Glu Ala Trp Pro Pro Ala Gly Ser Ser Ala
1 5 10 15

Val Ala Lys Gly Asn Cys Arg Glu Glu Ala Glu Gly Ala Glu Asp Arg
20 25 30

Gln Pro Ala Ser Arg Arg Gly Ala Gly Thr Thr Ala Ala Met Ala Ala
35 40 45

Ser Gly Pro Gly Cys Arg Ser Trp Cys Leu Cys Pro Glu Val Pro Ser
50 55 60

Ala Thr Phe Phe Thr Ala Leu Leu Ser Leu Leu Val Ser Gly Pro Arg
65 70 75 80

Leu Phe Leu Leu Gln Gln Pro Leu Ala Pro Ser Gly Leu Thr Leu Lys
85 90 95

Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val Thr Tyr Ile
100 105 110

Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala Ile Ile Ile
115 120 125

Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr Val Arg His
130 135 140

Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile Ile Phe Leu
145 150 155 160

Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu Val Glu Asp
165 170 175

Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly Val Thr Thr
180 185 190

Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met Val Val Pro
195 200 205

Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp Leu Ile Pro
210 215 220

Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile Gly Leu Ala
225 230 235 240

Tyr Ala His Leu Leu Leu Phe His Arg Pro Leu Arg Ala Ser Gly Ala
245 250 255

Glu Ala Arg Ser Asp Leu Pro Leu Gln Pro Asp Glu Glu Asp Ile Arg
260 265 270

Val Gln Val Arg Leu Arg Val Phe Ser Arg Glu Glu Gly Ser Pro Glu
275 280 285

Pro Glu Thr Glu Pro Gly Ala Trp Leu Leu Pro His Thr Glu Leu Pro
290 295 300

Pro Ser Pro Val Pro Lys Pro Pro Cys Val Pro Asp Ala Ala Arg Gln
305 310 315 320

Trp Ser Glu Ala Gly Leu Leu Ala Ser Cys Thr Pro Gly His Met Pro
325 330 335

Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys Tyr Val Gln Asn
340 345 350

His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr Pro Ala Ser Ala
355 360 365

Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val Asn Ser Pro Gly
370 375 380

Thr Val Tyr Ser Gly Ala Leu Gly His Gln Gly Leu Gln Ala Pro Arg
385 390 395 400

Ser Pro Pro Gly Ser Pro Cys Pro Glu Arg Ile Ser Arg Glu Val Ile
405 410 415

Ser Leu Gly Leu Leu Lys Val Leu Pro Lys Ser Leu Leu Thr Lys Val
420 425 430

Thr Tyr

<210> 15
<211> 1738
<212> DNA
<213> Homo sapiens

<400> 15
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cctgactccc agccggggtc cccgaccggc ctttcggggt tgccgggcgc gctctgcaaa 180

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ccctagtacg tgtttagaat aaaaaccagt ttgtttttca acctggacct ccttggag 1738

<210> 16
<211> 386
<212> PRT
<213> Homo sapiens

<400> 16

Met His Ala Arg Gly Pro His Gly Gln Leu Ser Pro Ala Leu Pro Leu

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Ala Ser Ser Val Leu Met Leu Leu Met Ser Thr Leu Trp Leu Val Gly
20 25 30

Ala Gly Pro Gly Leu Val Leu Ala Pro Glu Leu Leu Leu Asp Pro Trp
35 40 45

Gln Val His Arg Leu Leu Thr His Ala Leu Gly His Thr Ala Leu Pro
50 55 60

Gly Leu Leu Leu Ser Leu Leu Leu Leu Pro Thr Val Gly Trp Gln Gln
65 70 75 80

Glu Cys His Leu Gly Thr Leu Arg Phe Leu His Ala Ser Ala Leu Leu
85 90 95

Ala Leu Ala Ser Gly Leu Leu Ala Val Leu Leu Ala Gly Leu Gly Leu
100 105 110

Ser Ser Ala Ala Gly Ser Cys Gly Tyr Met Pro Val His Leu Ala Met
115 120 125

Leu Ala Gly Glu Gly His Arg Pro Arg Arg Pro Arg Gly Ala Leu Pro
130 135 140

Pro Trp Leu Ser Pro Trp Leu Leu Leu Ala Leu Thr Pro Leu Leu Ser
145 150 155 160

Ser Glu Pro Pro Phe Leu Gln Leu Leu Cys Gly Leu Leu Ala Gly Leu
165 170 175

Ala Tyr Ala Ala Gly Ala Phe Arg Trp Leu Glu Pro Ser Glu Arg Arg
180 185 190

Leu Gln Val Leu Gln Glu Gly Val Leu Cys Arg Thr Leu Ala Gly Cys
195 200 205

Trp Pro Leu Arg Leu Leu Ala Thr Pro Gly Ser Leu Ala Glu Leu Pro
210 215 220

Val Thr His Pro Ala Gly Val Arg Pro Pro Ile Pro Gly Pro Pro Tyr
225 230 235 240

Val Ala Ser Pro Asp Leu Trp Ser His Trp Glu Asp Ser Ala Leu Pro
245 250 255

Pro Pro Ser Leu Arg Pro Val Gln Pro Thr Trp Glu Gly Ser Ser Glu
260 265 270

Ala Gly Leu Asp Trp Ala Gly Ala Ser Phe Ser Pro Gly Thr Pro Met
275 280 285

Trp Ala Ala Leu Asp Glu Gln Met Leu Gln Glu Gly Ile Gln Ala Ser
290 295 300

Leu Leu Asp Gly Pro Ala Gln Glu Pro Gln Ser Ala Pro Trp Leu Ser
305 310 315 320

Lys Ser Ser Val Ser Ser Leu Arg Leu Gln Gln Leu Glu Arg Met Gly
325 330 335

Phe Pro Thr Glu Gln Ala Val Val Ala Leu Ala Ala Thr Gly Arg Val
340 345 350

Glu Gly Ala Val Ser Leu Leu Val Gly Gly Gln Val Gly Thr Glu Thr
355 360 365

Leu Val Thr His Gly Lys Gly Gly Pro Ala His Ser Glu Gly Pro Gly
370 375 380

Pro Pro
385

<210> 17
<211> 19
<212> PRT
<213> Homo sapiens

<400> 17

Met Gly Arg Val Glu Asp Gly Gly Thr Thr Glu Glu Leu Glu Asp Trp
1 5 10 15

Asp Pro Gly

<210> 18
<211> 1559
<212> DNA
<213> Homo sapiens

<400> 18
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cccagggaac agacaggcac ggggcccctg tcccaaaagt gctgggagcc tgagcctgat 180

gctcccagcc agcctggccc agccctttgg tccaggggtc gggcccgcac tcaggccttg 240

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ccactcccag gacttgcggt ctgagccttt ttggataatt aataaatatt ttacacagc 1559

<210> 19
<211> 593
<212> DNA
<213> Homo sapiens

<400> 19
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gagagtccct ttatctacag tcctgagaag agggaggaag cctggaggtt tatctcatac 120

atgctggtac atgctggagt tcagcacatc ttggggaatc tttgtatgca gcttgttttg 180

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gaaatgattc ctgcctttgg aattttcaga ctgctgatca tcatcctgat aattgtgttg 420

gacatgggat ttgctctcta tagaaggttc tttgttcctg aagatgggtc tccggtgtct 480

tttgcagctc acattgcagg tggatttgct ggaatgtcca ttggctacac ggtgtttagc 540

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<210> 20
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<212> DNA
<213> Homo sapiens

<400> 20
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agcctggaac gcaaggaccg gagggcgtgg gctgggacgc ccctacgttg gtctttcagg 120

gaaaggcctt ggaaagcagt cgttgcgcca gacagcccag ggaagagcgg cagcctgagg 180

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gcctggccga gctggcagtg tttatttact atgctgtgtg gaagcctcag aaacagtgga 540

tcacgttgga cacaggcatc ttggagagtc cctttatcta cagtcctgag aagagggagg 600

aagcctggag gtttatctca tacatgctgg tacatgctgg gtaagcaatg atagttaagc 660

cctggtatca gaggtgatta tatcattgta acctcttaaa acaaaaaa 708

<210> 21
<211> 616
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (498)..(498)
<223> "n" is A, C, G, or T

<400> 21
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ctgagacttc tctgtttctt catagaggct tccctttttt tttttatttc ctccagatgg 180

ctctttttat taattgactt acaatagggg caggtcagtt tgctggagat aggaaaatgt 240

tgaaaaacac agcaaataag acacaagcta aatatgcagc aattgctatc caaaaccttg 300

gatctttcat cagtgcttta tcaaagcagc taaacaccgt gtagccaatg gacattccag 360

caaatccacc tgcaatgtga gctgcaaaag acaccggaga cccatcttca ggaacaaaga 420

accttctata gagagcaaat cccatgtcca acacaattat caggatgatg atcagcagtc 480

tgaaaattcc aaaggcanga atcatttctt gaaaattcac cagaacattc ataaaatagc 540

ctcccatcag agcatagact cctcctgaag ctcccacaag atatctgagt gggtcaaaga 600

tggagctggc aaggga 616

<210> 22
<211> 354
<212> DNA
<213> Homo sapiens

<400> 22
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aggaagcctg gaggtttatc tcacacatgc tggtacatgc tggagttcag cacatcttgg 120

ggaatctttg tatgcagctt gttttgggta ttcccttgga aatggtccac aaaggcctcc 180

gtgtggggct ggtgtacctg gcaggagtga ttgcagggtc ccttgccagc tccatctttg 240

acccactcag atatcttgtg ggagcttcag gaggagtcta tgctctgatg ggaggctatt 300

ttatgaatgt tctggtgaat tttcaagaaa tgattcctgc ctttggaatt ttca 354

<210> 23
<211> 356
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (356)..(356)
<223> "n" is A, C, G, or T

<400> 23
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cagacagccc agggaagagc ggcacgctga ggacctaggg ccacctgctg ttccctggga 180

ttcatgtcct tctggggagg agggaggacc caggacaatg gctgctgttc atgatctgga 240

gatggagagc atgaatctga atatggggag agagatgaaa gaagagctgg aggaagagga 300

gaaaatgaga gaggatgggg gaggtaaaga tcgggccaag agtaaaaagg tccacn 356

<210> 24
<211> 524
<212> DNA
<213> Homo sapiens

<400> 24
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tacacggtgt ttagctgctt tgataaagca ctgatgaaag atccaaggtt ttggatagca 120

attgctgcat atttagcttg tgtcttattt gctgtgtttt tcaacatttt cctatctcca 180

gcaaactgac ctgcccctat tgtaagtcaa ttaataaaaa gagccatctg gaggaaataa 240

aaaaaaaagg aagactctat gaagaaacag agaagtctca gcaaaggcta acaattttat 300

atagaggaca aaacagcatt aaactcatca gttgcaaaga ttgcctataa aaggacctta 360

ggatttaagg aaggggcttc ttaatgtaga aagggaagaa gaagagagaa aagaagggta 420

gtaaaaacta gagattgggg ccaggcgcag tggctcacgc ctgtaatccc agcactttgg 480

gaggctgagg cgggtgaaat cacctgaggt catgagttca agac 524

<210> 25
<211> 428
<212> DNA
<213> Homo sapiens

<400> 25
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ttctgagact tctctgtttc ttcatagagt cttccttttt tttattattt cctccagatg 180

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ttgaaaaaca cagcaaataa gacacaagct aaatatgcag caattgctat ccaaaacctt 300

ggatctttca gcagtgcttt atcaaagcag ctaaacaccg tgtagccaat ggacattcca 360

gcaaatccac ctgcaatgtg agctgcaaaa gacaccttgg gagaaaagga gggaaaatgg 420

aaataagt 428

<210> 26
<211> 271
<212> DNA
<213> Homo sapiens

<400> 26
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aaaaccttgg atctttcagc agtgctttat caaagcagct aaacaccgtg tagccaatgg 120

acattccagc aaatccacct gcaatgtgag ctgcaaaaga cacctgggag aaaaggaggg 180

aaaatggaaa tcagtgaaga caatgctaat tgtgtatttc agttgcatct ctcttattca 240

aacacaaata ccgtcacagt taaacaagcg t 271

<210> 27
<211> 262
<212> DNA
<213> Homo sapiens

<400> 27
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atctttcagc agtgctttat caaagcagct aaacaccgtg tagcgcatgg acattccagc 120

aaatccacct gcaatgtgag ctgcaaaaga caccttggga gaaaaggagg gaaaatggaa 180

ataagtgaag acaatgctaa ttgtgtattt cagttgcatc tctcttattc aaacacaaat 240

accgtcacag ttaaacaagc gt 262

<210> 28
<211> 120
<212> DNA
<213> Homo sapiens

<400> 28
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ttgctatcca aaaccttgga tctttcagca gtgctttatc aaagcagcta aacaccgtgt 120

<210> 29
<211> 894
<212> DNA
<213> Homo sapiens

<400> 29
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tgctgcagct gtggtggggg tgcccctgga gatggtgcat ggagccaccc gaattgggct 180

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ctgcgaaggg ctgcgggcga aacacaagac aaacggacta acacaagaac aaggggcgaa 840

tcatcgcgcg ggagcacttg gaaagcaggt taaaacggga cacaaggaca cttt 894

<210> 30
<211> 344
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (19)..(19)
<223> "n" is A, C, G, or T

<220>
<221> misc_feature
<222> (49)..(49)
<223> "n" is A, C, G, or T

<220>
<221> misc_feature
<222> (92)..(92)
<223> "n" is A, C, G, or T

<220>
<221> misc_feature
<222> (130)..(130)
<223> "n" is A, C, G, or T

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aagaaacctn gcaggcgctc cctgtgggtg ctgcttttcc ctcccctccc cgaccttggg 180

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<210> 31
<211> 1140
<212> DNA
<213> Homo sapiens

<400> 31
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<210> 32
<211> 2964
<212> DNA
<213> Homo sapiens

<400> 32
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<211> 2643
<212> DNA
<213> Homo sapiens

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gcactgtgca gcggcagctg gagagcttcg acagccaccg gccctacttc acctactggc 540

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tctgccacca ggaccccagg acctgcgagg agccagcctc cagcggtgcc cacatctggc 1020

ccgatgacat cactaagtgg ccgatctgca cagagcaggc caggagcaac cacacaggct 1080

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gtgccatctt tctcccatac cgggcagagg tgggcccggc cggctcacag ttcggcctcc 1500

tcgcctgcct cttcgtggag ctcttccaga gctggccgct gctggagagg ccctggaagg 1560

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ttaactggcc ctggatcgag cacctcacct gcttcccctt caccagccgc ttctgcgaga 1860

agtatgagct ggaccaggtg ctgcactgac cgctgggcca cacggctgcc cctcagccct 1920

gctggaacag ggtctgcctg cgagggctgc cctctgcaga gcgctctctg tgtgccagag 1980

agccagagac ccaagacagg gcccgggctc tggacctggg tgccccctg ccaggcgagg 2040

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atcctgaccc aagctcaggc acacccaagg cacctgcctc tctgagtctt gggtctcagt 2160

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tcctcagcgc tgcctctgct ggtgccttct cccccactac tactggagcg tgcccttgct 2280

ggggacgtgg ctgtgccctc agttgccccc agggctgggt gcccaccatg ccccttcctc 2340

tttctcctcc tacctctgcc ctgtgagccc atccataagg ctctcagatg ggacattgta 2400

ggaaaggctt tggccatggt ctgggggcag agaacaaggg gggagacaca agtagacctc 2460

aggtagaacg acaccgggcg gagccacccc agggcctgct cccagggagt gctcgaggcg 2520

catcaggccc gtttttttacc agtttatatc acggtcttca tttttaaaag taacgctaac 2580

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aaa 2643

<210> 34
<211> 1305
<212> DNA
<213> Homo sapiens

<400> 34
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ggaacgacgg cggccatggc ggcctcgggg cccgggtgtc gcagctggtg cttgtgtccc 180

gaggtgccat ccgccacctt cttcactgcg ctgctctcgc tgctggtttc cgggcctcgc 240

ctgttcctgc tgcagcagcc cctggcgccc tcgggcctca cgctgaagtc cgaggccctt 300

cgcaactggc aagtttacag gctggtaacc tacatctttg tctacgagaa tcccatctcc 360

ctgctctgcg gcgctatcat catctggcgc tttgctggca atttcgagag aaccgtgggc 420

accgtccgcc actgcttctt caccgtgatc ttcgccatct tctccgctat catcttcctg 480

tcattcgagg ctgtgtcatc actgtcaaag ctgggggaag tggaggatgc cagaggtttc 540

accccagtgg cctttgccat gctgggagtc accaccgtcc gttctcggat gaggcgggcc 600

ctggtgtttg gcatggttgt gccctcagtc ctggttccgt ggctcctgct gggtgcctcg 660

tggctcattc cccagacctc tttcctcagt aatgtctgcg ggctgtccat cgggctggcc 720

tatgctcacc tactgctatt ccatcgacct ctcagagcga gtggcgctga agctcgatca 780

gaccttcccc ttcagcctga tgaggaggat atccgtgttc aagtacgtct cagggtcttc 840

agccgagagg agggcagccc agagccggaa actgaacccg gtgcctggct cctaccccac 900

acagagctgc caccctcacc tgtccccaag ccaccctgtg tcccagacgc agcacgccag 960

tggtcagaag ctggcctcct ggcctcctgc acccccgggc acatgcccac cttgcctccg 1020

taccagcctg cctccggcct gtgctatgtg cagaaccact ttggtccaaa ccccacctcc 1080

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aacagccctg gcacggtgta ttctggggcc ttgggacacc aggggctgca ggctccaagg 1200

agtcctccag ggtccccatg ccctgagaga atttctaggg aagtcatctc acttggcctt 1260

ctgaaggtcc tccctaagag tctcctgaca aaagttactt attga 1305

<210> 35
<211> 1738
<212> DNA
<213> Homo sapiens

<400> 35
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cctgactccc agccggggtc cccgaccggc ctttcggggt tgccgggcgc gctctgcaaa 180

ggggaaactg aggcccaagg aaattgagta tctctgcaaa gtcaccagct gagttcgaac 240

cagacagatc ctgggacccc ctactctatc cgccaccgga agaatctccg tccttgtctt 300

tccattctgc cctcccggct tcccagtaag cacacagccc caggaccacc cttgaccgtc 360

ctcaaccaag cgatgcatgc caggggcccc catggccaac tgtccccagc actgcctctg 420

gcctcctcag tcctgatgct gctgatgagc accctgtggc tggtgggggc cggccccggc 480

ctggtcctgg ccccggagct gttgctggac ccctggcagg tgcaccggct gctgacccat 540

gccctgggcc acacggccct gccaggcctg ctcctgagcc tgctgctcct gcccactgtg 600

ggctggcagc aggagtgcca cctgggcacg ctgagattcc tgcatgcctc agccctgctc 660

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ggcagctgtg gatacatgcc tgtccacctg gccatgctgg ctggggaggg acaccgccct 780

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ttccctacgg agcaggcggt ggtggcactg gcagccacag gccgtgtgga gggtgccgtg 1440

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cctgcccact ccgagggtcc tgggcctccc tagcccaggc agagagtggg gcacaggcag 1560

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gagggccaca gtggggagca ggggcacctc tggaggcagg agaggccccc cagcatgctg 1680

ccctagtacg tgtttagaat aaaaaccagt ttgtttttca acctggacct ccttggag 1738

<210> 36
<211> 438
<212> PRT
<213> Homo sapiens

<400> 36

Met Gly Arg Val Glu Asp Gly Gly Thr Thr Glu Glu Leu Glu Asp Trp
1 5 10 15

Asp Pro Gly Thr Ser Ala Leu Pro Ala Pro Gly Ile Lys Gln Gly Pro
20 25 30

Arg Glu Gln Thr Gly Thr Gly Pro Leu Ser Gln Lys Cys Trp Glu Pro
35 40 45

Glu Pro Asp Ala Pro Ser Gln Pro Gly Pro Ala Leu Trp Ser Arg Gly
50 55 60

Arg Ala Arg Thr Gln Ala Leu Ala Gly Gly Ser Ser Leu Gln Gln Leu
65 70 75 80

Asp Pro Glu Asn Thr Gly Phe Ile Gly Ala Asp Thr Phe Thr Gly Leu
85 90 95

Val His Ser His Glu Leu Pro Leu Asp Pro Ala Lys Leu Asp Met Leu
100 105 110

Val Ala Leu Ala Gln Ser Asn Glu Gln Gly Gln Val Cys Tyr Gln Glu
115 120 125

Leu Val Asp Leu Ile Ser Ser Lys Arg Ser Ser Ser Phe Lys Arg Ala
130 135 140

Ile Ala Asn Gly Gln Arg Ala Leu Pro Arg Asp Gly Pro Leu Asp Glu
145 150 155 160

Pro Gly Leu Gly Val Tyr Lys Arg Phe Val Arg Tyr Val Ala Tyr Glu
165 170 175

Ile Leu Pro Cys Glu Val Asp Arg Arg Trp Tyr Phe Tyr Arg His Arg
180 185 190

Ser Cys Pro Pro Pro Val Phe Met Ala Ser Val Thr Leu Ala Gln Ile
195 200 205

Ile Val Phe Leu Cys Tyr Gly Ala Arg Leu Asn Lys Trp Val Leu Gln
210 215 220

Thr Tyr His Pro Glu Tyr Met Lys Ser Pro Leu Val Tyr His Pro Gly

225 230 235 240

His Arg Ala Arg Ala Trp Arg Phe Leu Thr Tyr Met Phe Met His Val
245 250 255

Gly Leu Glu Gln Leu Gly Phe Asn Ala Leu Leu Gln Leu Met Ile Gly
260 265 270

Val Pro Leu Glu Met Val His Gly Leu Leu Arg Ile Ser Leu Leu Tyr
275 280 285

Leu Ala Gly Val Leu Ala Gly Ser Leu Thr Val Ser Ile Thr Asp Met
290 295 300

Arg Ala Pro Val Val Gly Gly Ser Gly Gly Val Tyr Ala Leu Cys Ser
305 310 315 320

Ala His Leu Ala Asn Val Val Met Asn Trp Ala Gly Met Arg Cys Pro
325 330 335

Tyr Lys Leu Leu Arg Met Val Leu Ala Leu Val Cys Met Ser Ser Glu
340 345 350

Val Gly Arg Ala Val Trp Leu Arg Phe Ser Pro Pro Leu Pro Ala Ser
355 360 365

Gly Pro Gln Pro Ser Phe Met Ala His Leu Ala Gly Ala Val Val Gly
370 375 380

Val Ser Met Gly Leu Thr Ile Leu Arg Ser Tyr Glu Glu Arg Leu Arg
385 390 395 400

Asp Gln Cys Gly Trp Trp Val Val Leu Leu Ala Tyr Gly Thr Phe Leu
405 410 415

Leu Phe Ala Val Phe Trp Asn Val Phe Ala Tyr Asp Leu Leu Gly Ala
420 425 430

His Ile Pro Pro Pro Pro
435

<210> 37
<211> 292

<212> PRT
<213> Homo sapiens

<400> 37

Met Asn Leu Asn Met Gly Arg Glu Met Lys Glu Glu Leu Glu Glu Glu
1 5 10 15

Glu Lys Met Arg Glu Asp Gly Gly Gly Lys Asp Arg Ala Lys Ser Lys
20 25 30

Lys Val His Arg Ile Val Ser Lys Trp Met Leu Pro Glu Lys Ser Arg
35 40 45

Gly Thr Tyr Leu Glu Arg Ala Asn Cys Phe Pro Pro Pro Val Phe Ile
50 55 60

Ile Ser Ile Ser Leu Ala Glu Leu Ala Val Phe Ile Tyr Tyr Ala Val
65 70 75 80

Trp Lys Pro Gln Lys Gln Trp Ile Thr Leu Asp Thr Gly Ile Leu Glu
85 90 95

Ser Pro Phe Ile Tyr Ser Pro Glu Lys Arg Glu Glu Ala Trp Arg Phe
100 105 110

Ile Ser Tyr Met Leu Val His Ala Gly Val Gln His Ile Leu Gly Asn
115 120 125

Leu Cys Met Gln Leu Val Leu Gly Ile Pro Leu Glu Met Val His Lys
130 135 140

Gly Leu Arg Val Gly Leu Val Tyr Leu Ala Gly Val Ile Ala Gly Ser
145 150 155 160

Leu Ala Ser Ser Ile Phe Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser
165 170 175

Gly Gly Val Tyr Ala Leu Met Gly Gly Tyr Phe Met Asn Val Leu Val
180 185 190

Asn Phe Gln Glu Met Ile Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile
195 200 205

Ile Ile Leu Ile Ile Val Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg
210 215 220

Phe Phe Val Pro Glu Asp Gly Ser Pro Val Ser Phe Ala Ala His Ile
225 230 235 240

Ala Gly Gly Phe Ala Gly Met Ser Ile Gly Tyr Thr Val Phe Ser Cys
245 250 255

Phe Asp Lys Ala Leu Leu Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala
260 265 270

Ala Tyr Leu Ala Cys Val Leu Phe Ala Val Phe Phe Asn Ile Phe Leu
275 280 285

Ser Pro Ala Asn
290

<210> 38
<211> 174
<212> PRT
<213> Homo sapiens

<400> 38

Leu Cys Arg Val Gln His Ile Leu Gly Asn Leu Cys Met Gln Leu Val
1 5 10 15

Leu Gly Ile Pro Leu Glu Met Val His Lys Gly Leu Arg Val Gly Leu
20 25 30

Val Tyr Leu Ala Gly Val Ile Ala Gly Ser Leu Ala Ser Ser Ile Phe
35 40 45

Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser Gly Gly Val Tyr Ala Leu
50 55 60

Met Gly Gly Tyr Phe Met Asn Val Leu Val Asn Phe Gln Glu Met Ile
65 70 75 80

Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile Ile Ile Leu Ile Ile Val
85 90 95

Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg Phe Phe Val Pro Glu Asp
100 105 110

Gly Ser Pro Val Ser Phe Ala Ala His Ile Ala Gly Gly Phe Ala Gly
115 120 125

Met Ser Ile Gly Tyr Thr Val Phe Ser Cys Phe Asp Lys Ala Leu Leu
130 135 140

Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala Ala Tyr Leu Ala Cys Val
145 150 155 160

Leu Phe Ala Val Phe Phe Asn Ile Phe Leu Ser Pro Ala Asn
165 170

<210> 39
<211> 162
<212> PRT
<213> Homo sapiens

<400> 39

Met Gln Leu Val Leu Gly Ile Pro Leu Glu Met Val His Lys Gly Leu
1 5 10 15

Arg Val Gly Leu Val Tyr Leu Ala Gly Val Ile Ala Gly Ser Leu Ala
20 25 30

Ser Ser Ile Phe Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser Gly Gly
35 40 45

Val Tyr Ala Leu Met Gly Gly Tyr Phe Met Asn Val Leu Val Asn Phe
50 55 60

Gln Glu Met Ile Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile Ile Ile
65 70 75 80

Leu Ile Ile Val Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg Phe Phe
85 90 95

Val Pro Glu Asp Gly Ser Pro Val Ser Phe Ala Ala His Ile Ala Gly
100 105 110

Gly Phe Ala Gly Met Ser Ile Gly Tyr Thr Val Phe Ser Cys Phe Asp
115 120 125

Lys Ala Leu Leu Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala Ala Tyr
130 135 140

Leu Ala Cys Val Leu Phe Ala Val Phe Phe Asn Ile Phe Leu Ser Pro
145 150 155 160

Ala Asn

<210> 40
<211> 379
<212> PRT
<213> Homo sapiens

<400> 40

Met Ala Trp Arg Gly Trp Ala Gln Arg Gly Trp Gly Cys Gly Gln Ala
1 5 10 15

Trp Gly Ala Ser Val Gly Gly Arg Ser Cys Glu Glu Leu Thr Ala Val
20 25 30

Leu Thr Pro Pro Gln Leu Leu Gly Arg Arg Phe Asn Phe Phe Ile Gln
35 40 45

Gln Lys Cys Gly Phe Arg Lys Ala Pro Arg Lys Val Glu Pro Arg Arg
50 55 60

Ser Asp Pro Gly Thr Ser Gly Glu Ala Tyr Lys Arg Ser Ala Leu Ile
65 70 75 80

Pro Pro Val Glu Glu Thr Val Phe Tyr Pro Ser Pro Tyr Pro Ile Arg
85 90 95

Ser Leu Ile Lys Pro Leu Phe Phe Thr Val Gly Phe Thr Gly Cys Ala
100 105 110

Phe Gly Ser Ala Ala Ile Trp Gln Tyr Glu Ser Leu Lys Ser Arg Val
115 120 125

Gln Ser Tyr Phe Asp Gly Ile Lys Ala Asp Trp Leu Asp Ser Ile Arg
130 135 140

Pro Gln Lys Glu Gly Asp Phe Arg Lys Glu Ile Asn Lys Trp Trp Asn
145 150 155 160

Asn Leu Ser Asp Gly Gln Arg Thr Val Thr Gly Ile Ile Ala Ala Asn
165 170 175

Val Leu Val Phe Cys Leu Trp Arg Val Pro Ser Leu Gln Arg Thr Met
180 185 190

Ile Arg Tyr Phe Thr Ser Asn Pro Ala Ser Lys Val Leu Cys Ser Pro
195 200 205

Met Leu Leu Ser Thr Phe Ser His Phe Ser Leu Phe His Met Ala Ala
210 215 220

Asn Met Tyr Val Leu Trp Ser Phe Ser Ser Ser Ile Val Asn Ile Leu
225 230 235 240

Gly Gln Glu Gln Phe Met Ala Val Tyr Leu Ser Ala Gly Val Ile Ser
245 250 255

Asn Phe Val Ser Tyr Leu Gly Lys Val Ala Thr Gly Arg Tyr Gly Pro
260 265 270

Ser Leu Gly Ala Ser Gly Ala Ile Met Thr Val Leu Ala Ala Val Cys
275 280 285

Thr Lys Ile Pro Glu Gly Arg Leu Ala Ile Ile Phe Leu Pro Met Phe
290 295 300

Thr Phe Thr Ala Gly Asn Ala Leu Lys Ala Ile Ile Ala Met Asp Thr
305 310 315 320

Ala Gly Met Ile Leu Gly Trp Lys Phe Phe Asp His Ala Ala His Leu
325 330 335

Gly Gly Ala Leu Phe Gly Ile Trp Tyr Val Thr Tyr Gly His Glu Leu
340 345 350

Ile Trp Lys Asn Arg Glu Pro Leu Val Lys Ile Trp His Glu Ile Arg
355 360 365

Thr Asn Gly Pro Lys Lys Gly Gly Gly Ser Lys
370 375

<210> 41
<211> 855
<212> PRT
<213> Homo sapiens

<400> 41

Met Ser Glu Ala Arg Arg Asp Ser Thr Ser Ser Leu Gln Arg Lys Lys
1 5 10 15

Pro Pro Trp Leu Lys Leu Asp Ile Pro Ser Ala Val Pro Leu Thr Ala
20 25 30

Glu Glu Pro Ser Phe Leu Gln Pro Leu Arg Arg Gln Ala Phe Leu Arg
35 40 45

Ser Val Ser Met Pro Ala Glu Thr Ala His Ile Ser Ser Pro His His
50 55 60

Glu Leu Arg Arg Pro Val Leu Gln Arg Gln Thr Ser Ile Thr Gln Thr
65 70 75 80

Ile Arg Arg Gly Thr Ala Asp Trp Phe Gly Val Ser Lys Asp Ser Asp
85 90 95

Ser Thr Gln Lys Trp Gln Arg Lys Ser Ile Arg His Cys Ser Gln Arg
100 105 110

Tyr Gly Lys Leu Lys Pro Gln Val Leu Arg Glu Leu Asp Leu Pro Ser
115 120 125

Gln Asp Asn Val Ser Leu Thr Ser Thr Glu Thr Pro Pro Pro Leu Tyr
130 135 140

Val Gly Pro Cys Gln Leu Gly Met Gln Lys Ile Ile Asp Pro Leu Ala
145 150 155 160

Arg Gly Arg Ala Phe Arg Val Ala Asp Asp Thr Ala Glu Gly Leu Ser
165 170 175

Ala Pro His Thr Pro Val Thr Pro Gly Ala Ala Ser Leu Cys Ser Phe
180 185 190

Ser Ser Ser Arg Ser Gly Phe His Arg Leu Pro Arg Arg Arg Lys Arg

195 200 205

Glu Ser Val Ala Lys Met Ser Phe Arg Ala Ala Ala Ala Leu Met Lys
210 215 220

Gly Arg Ser Val Arg Asp Gly Thr Phe Arg Arg Ala Gln Arg Arg Ser
225 230 235 240

Phe Thr Pro Ala Ser Phe Leu Glu Glu Asp Thr Thr Asp Phe Pro Asp
245 250 255

Glu Leu Asp Thr Ser Phe Phe Ala Arg Glu Gly Ile Leu His Glu Glu
260 265 270

Leu Ser Thr Tyr Pro Asp Glu Val Phe Glu Ser Pro Ser Glu Ala Ala
275 280 285

Leu Lys Asp Trp Glu Lys Ala Pro Glu Gln Ala Asp Leu Thr Gly Gly
290 295 300

Ala Leu Asp Arg Ser Glu Leu Glu Arg Ser His Leu Met Leu Pro Leu
305 310 315 320

Glu Arg Gly Trp Arg Lys Gln Lys Glu Gly Ala Ala Ala Pro Gln Pro
325 330 335

Lys Val Arg Leu Arg Gln Glu Val Val Ser Thr Ala Gly Pro Arg Arg
340 345 350

Gly Gln Arg Ile Ala Val Pro Val Arg Lys Leu Phe Ala Arg Glu Lys
355 360 365

Arg Pro Tyr Gly Leu Gly Met Val Gly Arg Leu Thr Asn Arg Thr Tyr
370 375 380

Arg Lys Arg Ile Asp Ser Phe Val Lys Arg Gln Ile Glu Asp Met Asp
385 390 395 400

Asp His Arg Pro Phe Phe Thr Tyr Trp Leu Thr Phe Val His Ser Leu
405 410 415

Val Ala Ile Leu Ala Val Cys Ile Tyr Gly Ile Ala Pro Val Gly Phe
420 425 430

Ser Gln His Glu Thr Val Asp Ser Val Leu Arg Asn Arg Gly Val Tyr
435 440 445

Glu Asn Val Lys Tyr Val Gln Gln Glu Asn Phe Trp Ile Gly Pro Ser
450 455 460

Ser Glu Ala Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Met Arg
465 470 475 480

Gln Asp Pro Gln Val His Ser Phe Ile Arg Ser Ala Arg Glu Arg Glu
485 490 495

Lys His Ser Ala Cys Cys Val Arg Asn Asp Arg Ser Gly Cys Val Gln
500 505 510

Thr Ser Glu Glu Glu Cys Ser Ser Thr Leu Ala Val Trp Val Lys Trp
515 520 525

Pro Ile His Pro Ser Ala Pro Glu Leu Ala Gly His Lys Arg Gln Phe
530 535 540

Gly Ser Val Cys His Gln Asp Pro Arg Val Cys Asp Glu Pro Ser Ser
545 550 555 560

Glu Asp Pro His Glu Trp Pro Glu Asp Ile Thr Lys Trp Pro Ile Cys
565 570 575

Thr Lys Asn Ser Ala Gly Asn His Thr Asn His Pro His Met Asp Cys
580 585 590

Val Ile Thr Gly Arg Pro Cys Cys Ile Gly Thr Lys Gly Arg Cys Glu
595 600 605

Ile Thr Ser Arg Glu Tyr Cys Asp Phe Met Arg Gly Tyr Phe His Glu
610 615 620

Glu Ala Thr Leu Cys Ser Gln Val His Cys Met Asp Asp Val Cys Gly
625 630 635 640

Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln Phe Tyr Arg Leu
645 650 655

Trp Leu Ser Leu Phe Leu His Ala Gly Ile Leu His Cys Leu Val Ser
660 665 670

Ile Cys Phe Gln Met Thr Val Leu Arg Asp Leu Glu Lys Leu Ala Gly
675 680 685

Trp His Arg Ile Ala Ile Ile Tyr Leu Leu Ser Gly Val Thr Gly Asn
690 695 700

Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu Val Gly Pro Ala
705 710 715 720

Gly Ser Gln Phe Gly Ile Leu Ala Cys Leu Phe Val Glu Leu Phe Gln
725 730 735

Ser Trp Gln Ile Leu Ala Arg Pro Trp Arg Ala Phe Phe Lys Leu Leu
740 745 750

Ala Val Val Leu Phe Leu Phe Thr Phe Gly Leu Leu Pro Trp Ile Asp
755 760 765

Asn Phe Ala His Ile Ser Gly Phe Ile Ser Gly Leu Phe Leu Ser Phe
770 775 780

Ala Phe Leu Pro Tyr Ile Ser Phe Gly Lys Phe Asp Leu Tyr Arg Lys
785 790 795 800

Arg Cys Gln Ile Ile Ile Phe Gln Val Val Phe Leu Gly Leu Leu Ala
805 810 815

Gly Leu Val Val Leu Phe Tyr Val Tyr Pro Val Arg Cys Glu Trp Cys
820 825 830

Glu Phe Leu Thr Cys Ile Pro Phe Thr Asp Lys Phe Cys Glu Lys Tyr
835 840 845

Glu Leu Asp Ala Gln Leu His
850 855

<210> 42
<211> 619
<212> PRT
<213> Homo sapiens

<400> 42

Met Ser Val Ala His Met Ser Leu Gln Ala Ala Ala Ala Leu Leu Lys
1 5 10 15

Gly Arg Ser Val Leu Asp Ala Thr Gly Gln Arg Cys Arg Val Val Lys
20 25 30

Arg Ser Phe Ala Phe Pro Ser Phe Leu Glu Glu Asp Val Val Asp Gly
35 40 45

Ala Asp Thr Phe Asp Ser Ser Phe Phe Ser Lys Glu Glu Met Ser Ser
50 55 60

Met Pro Asp Asp Val Phe Glu Ser Pro Pro Leu Ser Ala Ser Tyr Phe
65 70 75 80

Arg Gly Ile Pro His Ser Ala Ser Pro Val Ser Pro Asp Gly Val Gln
85 90 95

Ile Pro Leu Lys Glu Tyr Gly Arg Ala Pro Val Pro Gly Pro Arg Arg
100 105 110

Gly Lys Arg Ile Ala Ser Lys Val Lys His Phe Ala Phe Asp Arg Lys
115 120 125

Lys Arg His Tyr Gly Leu Gly Val Val Gly Asn Trp Leu Asn Arg Ser
130 135 140

Tyr Arg Arg Ser Ile Ser Ser Thr Val Gln Arg Gln Leu Glu Ser Phe
145 150 155 160

Asp Ser His Arg Pro Tyr Phe Thr Tyr Trp Leu Thr Phe Val His Val
165 170 175

Ile Ile Thr Leu Leu Val Ile Cys Thr Tyr Gly Ile Ala Pro Val Gly
180 185 190

Phe Ala Gln His Val Thr Thr Gln Leu Val Leu Arg Asn Lys Gly Val
195 200 205

Tyr Glu Ser Val Lys Tyr Ile Gln Gln Glu Asn Phe Trp Val Gly Pro
210 215 220

Ser Ser Ile Asp Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Ile
225 230 235 240

Arg Lys Asp Gly Gln Ile Glu Gln Leu Val Leu Arg Glu Arg Asp Leu
245 250 255

Glu Arg Asp Ser Gly Cys Cys Val Gln Asn Asp His Ser Gly Cys Ile
260 265 270

Gln Thr Gln Arg Lys Asp Cys Ser Glu Thr Leu Ala Thr Phe Val Lys
275 280 285

Trp Gln Asp Asp Thr Gly Pro Pro Met Asp Lys Ser Asp Leu Gly Gln
290 295 300

Lys Arg Thr Ser Gly Ala Val Cys His Gln Asp Pro Arg Thr Cys Glu
305 310 315 320

Glu Pro Ala Ser Ser Gly Ala His Ile Trp Pro Asp Asp Ile Thr Lys
325 330 335

Trp Pro Ile Cys Thr Glu Gln Ala Arg Ser Asn His Thr Gly Phe Leu
340 345 350

His Met Asp Cys Glu Ile Lys Gly Arg Pro Cys Cys Ile Gly Thr Lys
355 360 365

Gly Ser Cys Glu Ile Thr Thr Arg Glu Tyr Cys Glu Phe Met His Gly
370 375 380

Tyr Phe His Glu Glu Ala Thr Leu Cys Ser Gln Val His Cys Leu Asp
385 390 395 400

Lys Val Cys Gly Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln
405 410 415

Phe Tyr Arg Leu Trp Leu Ser Leu Phe Leu His Ala Gly Val Val His
420 425 430

Cys Leu Val Ser Val Val Phe Gln Met Thr Ile Leu Arg Asp Leu Glu
435 440 445

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Lys Leu Ala Gly Trp His Arg Ile Ala Ile Ile Phe Ile Leu Ser Gly
    450                 455                 460

Ile Thr Gly Asn Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu
465                 470                 475                 480

Val Gly Pro Ala Gly Ser Gln Phe Gly Leu Leu Ala Cys Leu Phe Val
                485                 490                 495

Glu Leu Phe Gln Ser Trp Pro Leu Leu Glu Arg Pro Trp Lys Ala Phe
            500                 505                 510

Leu Asn Leu Ser Ala Ile Val Leu Phe Leu Phe Ile Cys Gly Leu Leu
        515                 520                 525

Pro Trp Ile Asp Asn Ile Ala His Ile Phe Gly Phe Leu Ser Gly Leu
    530                 535                 540

Leu Leu Ala Phe Ala Phe Leu Pro Tyr Ile Thr Phe Gly Thr Ser Asp
545                 550                 555                 560

Lys Tyr Arg Lys Arg Ala Leu Ile Leu Val Ser Leu Leu Ala Phe Ala
                565                 570                 575

Gly Leu Phe Ala Ala Leu Val Leu Trp Leu Tyr Ile Tyr Pro Ile Asn
            580                 585                 590

Trp Pro Trp Ile Glu His Leu Thr Cys Phe Pro Phe Thr Ser Arg Phe
        595                 600                 605

Cys Glu Lys Tyr Glu Leu Asp Gln Val Leu His
    610                 615
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<210> 43
<211> 434
<212> PRT
<213> Homo sapiens

<400> 43

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Met Gly Arg Gly Leu Trp Glu Ala Trp Pro Pro Ala Gly Ser Ser Ala
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Val Ala Lys Gly Asn Cys Arg Glu Glu Ala Glu Gly Ala Glu Asp Arg
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Gln Pro Ala Ser Arg Arg Gly Ala Gly Thr Thr Ala Ala Met Ala Ala
35 40 45

Ser Gly Pro Gly Cys Arg Ser Trp Cys Leu Cys Pro Glu Val Pro Ser
50 55 60

Ala Thr Phe Phe Thr Ala Leu Leu Ser Leu Leu Val Ser Gly Pro Arg
65 70 75 80

Leu Phe Leu Leu Gln Gln Pro Leu Ala Pro Ser Gly Leu Thr Leu Lys
85 90 95

Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val Thr Tyr Ile
100 105 110

Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala Ile Ile Ile
115 120 125

Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr Val Arg His
130 135 140

Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile Ile Phe Leu
145 150 155 160

Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu Val Glu Asp
165 170 175

Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly Val Thr Thr
180 185 190

Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met Val Val Pro
195 200 205

Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp Leu Ile Pro
210 215 220

Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile Gly Leu Ala
225 230 235 240

Tyr Ala His Leu Leu Leu Phe His Arg Pro Leu Arg Ala Ser Gly Ala
245 250 255

Glu Ala Arg Ser Asp Leu Pro Leu Gln Pro Asp Glu Glu Asp Ile Arg
260 265 270

Val Gln Val Arg Leu Arg Val Phe Ser Arg Glu Glu Gly Ser Pro Glu
275 280 285

Pro Glu Thr Glu Pro Gly Ala Trp Leu Leu Pro His Thr Glu Leu Pro
290 295 300

Pro Ser Pro Val Pro Lys Pro Pro Cys Val Pro Asp Ala Ala Arg Gln
305 310 315 320

Trp Ser Glu Ala Gly Leu Leu Ala Ser Cys Thr Pro Gly His Met Pro
325 330 335

Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys Tyr Val Gln Asn
340 345 350

His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr Pro Ala Ser Ala
355 360 365

Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val Asn Ser Pro Gly
370 375 380

Thr Val Tyr Ser Gly Ala Leu Gly His Gln Gly Leu Gln Ala Pro Arg
385 390 395 400

Ser Pro Pro Gly Ser Pro Cys Pro Glu Arg Ile Ser Arg Glu Val Ile
405 410 415

Ser Leu Gly Leu Leu Lys Val Leu Pro Lys Ser Leu Leu Thr Lys Val
420 425 430

Thr Tyr

<210> 44
<211> 386
<212> PRT
<213> Homo sapiens

<400> 44

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Met His Ala Arg Gly Pro His Gly Gln Leu Ser Pro Ala Leu Pro Leu
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Ala Ser Ser Val Leu Met Leu Leu Met Ser Thr Leu Trp Leu Val Gly
            20                  25                  30

Ala Gly Pro Gly Leu Val Leu Ala Pro Glu Leu Leu Leu Asp Pro Trp
        35                  40                  45

Gln Val His Arg Leu Leu Thr His Ala Leu Gly His Thr Ala Leu Pro
    50                  55                  60

Gly Leu Leu Leu Ser Leu Leu Leu Leu Pro Thr Val Gly Trp Gln Gln
65                  70                  75                  80

Glu Cys His Leu Gly Thr Leu Arg Phe Leu His Ala Ser Ala Leu Leu
                85                  90                  95

Ala Leu Ala Ser Gly Leu Leu Ala Val Leu Leu Ala Gly Leu Gly Leu
            100                 105                 110

Ser Ser Ala Ala Gly Ser Cys Gly Tyr Met Pro Val His Leu Ala Met
        115                 120                 125

Leu Ala Gly Glu Gly His Arg Pro Arg Arg Pro Arg Gly Ala Leu Pro
    130                 135                 140

Pro Trp Leu Ser Pro Trp Leu Leu Leu Ala Leu Thr Pro Leu Leu Ser
145                 150                 155                 160

Ser Glu Pro Pro Phe Leu Gln Leu Leu Cys Gly Leu Leu Ala Gly Leu
                165                 170                 175

Ala Tyr Ala Ala Gly Ala Phe Arg Trp Leu Glu Pro Ser Glu Arg Arg
            180                 185                 190

Leu Gln Val Leu Gln Glu Gly Val Leu Cys Arg Thr Leu Ala Gly Cys
        195                 200                 205

Trp Pro Leu Arg Leu Leu Ala Thr Pro Gly Ser Leu Ala Glu Leu Pro
    210                 215                 220

Val Thr His Pro Ala Gly Val Arg Pro Pro Ile Pro Gly Pro Pro Tyr
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225 230 235 240

Val Ala Ser Pro Asp Leu Trp Ser His Trp Glu Asp Ser Ala Leu Pro
245 250 255

Pro Pro Ser Leu Arg Pro Val Gln Pro Thr Trp Glu Gly Ser Ser Glu
260 265 270

Ala Gly Leu Asp Trp Ala Gly Ala Ser Phe Ser Pro Gly Thr Pro Met
275 280 285

Trp Ala Ala Leu Asp Glu Gln Met Leu Gln Glu Gly Ile Gln Ala Ser
290 295 300

Leu Leu Asp Gly Pro Ala Gln Glu Pro Gln Ser Ala Pro Trp Leu Ser
305 310 315 320

Lys Ser Ser Val Ser Ser Leu Arg Leu Gln Gln Leu Glu Arg Met Gly
325 330 335

Phe Pro Thr Glu Gln Ala Val Val Ala Leu Ala Ala Thr Gly Arg Val
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Glu Gly Ala Val Ser Leu Leu Val Gly Gly Gln Val Gly Thr Glu Thr
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Leu Val Thr His Gly Lys Gly Gly Pro Ala His Ser Glu Gly Pro Gly
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Pro Pro
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<213> Mus musculus

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<212> PRT
<213> Mus musculus

<400> 46

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Ala Gly Ser Gly Ser Gly Ser Ser Cys Ser Val Gly Asp Asp Leu Pro
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Arg Gln Cys Val Glu Leu Gly Pro Arg Val Arg Val Gln Asp Met Arg

```
        35                  40                  45

Val Leu Trp Leu Cys Ala Arg Trp Ala Gly Ile Ser Val Thr Leu Ser
    50                  55                  60

Glu Leu Gly Glu Arg Arg Ala Glu Gln Ala Glu Arg Ala Gly Arg Gly
65                  70                  75                  80

Gly Ala Glu Arg Ser Ala Glu Gln Pro Leu Pro Ala Ser Ala Asp Pro
                85                  90                  95

Gly Pro Arg Pro Gly Ser Met Asp Arg Ser Ser Leu Leu Gln Leu Ile
            100                 105                 110

Gln Glu Gln Gln Leu Asp Pro Glu Asn Thr Gly Phe Ile Gly Ala Asp
        115                 120                 125

Thr Phe Ala Gly Leu Val His Ser His Glu Leu Pro Leu Asp Pro Thr
    130                 135                 140

Lys Leu Asp Met Leu Val Ala Leu Ala Gln Ser Asn Glu Arg Gly Gln
145                 150                 155                 160

Val Cys Tyr Gln Glu Leu Val Asp Leu Val Ser Ala Met Ile Ser Ser
                165                 170                 175

Lys Arg Ser Ser Ser Phe Lys Arg Ala Ile Ala Asn Gly Gln Arg Ala
            180                 185                 190

Leu Pro Arg Asp Gly Leu Leu Asp Glu Pro Gly Leu Ser Val Tyr Lys
        195                 200                 205

Arg Phe Val Arg Tyr Val Ala Tyr Glu Ile Leu Pro Cys Glu Val Asp
    210                 215                 220

Arg Arg Trp Tyr Phe Tyr Arg His Arg Thr Cys Pro Pro Pro Val Phe
225                 230                 235                 240

Met Ala Ser Val Thr Leu Ala Gln Cys Pro Gln Ile Ile Val Phe Leu
                245                 250                 255

Cys Tyr Gly Ala Arg Leu Asn Lys Trp Val Leu Gln Thr Tyr His Pro
            260                 265                 270
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Glu Tyr Met Lys Ser Pro Leu Val Tyr His Pro Gly His Arg Ala Arg
275 280 285

Ala Trp Arg Phe Leu Thr Tyr Met Phe Met His Val Gly Leu Glu Gln
290 295 300

Leu Gly Phe Asn Ala Leu Leu Gln Leu Met Ile Gly Val Pro Leu Glu
305 310 315 320

Met Val His Gly Val Leu Arg Ile Ser Leu Leu Tyr Leu Ala Gly Val
325 330 335

Leu Ala Gly Ser Leu Thr Val Ser Ile Thr Asp Met Arg Ala Pro Val
340 345 350

Val Gly Gly Ser Gly Gly Val Tyr Ala Leu Cys Ser Ala His Leu Ala
355 360 365

Asn Val Val Met Val Met Gly Leu Pro Phe Trp Gly Val Ser Ser Glu
370 375 380

Val Gly Arg Ala Val Trp Leu Arg Phe Ser Pro Pro Leu Pro Ala Ser
385 390 395 400

Gly Pro Gln Pro Ser Phe Met Ala His Leu Ala Gly Ala Val Val Gly
405 410 415

Val Ser Met Gly Leu Thr Ile Leu Arg Ser Tyr Glu Glu Arg Leu Arg
420 425 430

Asp Gln Cys Gly Trp Trp Val Val Leu Leu Ala Tyr Gly Thr Phe Leu
435 440 445

Leu Phe Ala Ile Phe Trp Asn Val Phe Ala Tyr Asp Leu Leu Gly Ala
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<211> 34319
<212> DNA

<213> Mus musculus

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